## AMENDMENTS TO THE CLAIMS:

This listing of claims replaces all prior versions of the claims in the application.

8. (currently amended) A process for preparing trifluoro-3(R)-hydroxybutyric acid 4,4,4-trifluoro-3(R)-hydroxybutyric acid derivatives of the general formula

wherein

- R1  $\underline{R^1}$  is (a) -OR<sup>2</sup>, in which R<sup>2</sup> is hydrogen, C<sub>1-10</sub>-alkyl, C<sub>2-10</sub>-alkenyl, C<sub>3-8</sub>-cycloalkyl, aryl, alkoxyalkyl or alkoxyalkoxyalkyl,
  - (b)  $-NR^3R^4$ , in which  $R^3$  and  $R^4$  are identical or different and represent hydrogen,  $C_{1-10}$ -alkyl,  $C_{2-10}$ -alkenyl,  $C_{3-8}$ -cycloalkyl or aryl, or
  - (c)  $-SR^5$ , in which  $R^5$  is hydrogen,  $C_{1-10}$ -alkyl,  $C_{2-10}$ -alkenyl, aryl or  $C_{3-8}$ -cycloalkyl,

which process comprises:

(i) reacting a trifluoroacetoacetic acid derivative of the general formula  $\underline{II}$ 

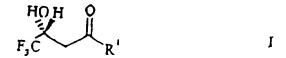
$$F_3C$$
  $R'$ 

wherein  $R1 R^1$  is

(a)  $-OR^2$ , in which  $R^2$  is hydrogen,  $C_{1-10}$ -alkyl,  $C_{1-10}$ -alkenyl  $C_{2-10}$ -alkenyl,  $C_{3-8}$ -cycloalkyl, aryl, alkoxyalkyl or alkoxyalkoxyalkyl,

- (b) -NR<sup>3</sup>R<sup>4</sup>, in which R<sup>3</sup> and R<sup>4</sup> are identical or different and represent hydrogen,  $C_{1-10}$ -alkyl,  $C_{1-10}$ -alkenyl  $C_{2-10}$ -alkenyl,  $C_{3-8}$ -cycloalkyl or aryl, or
- (c) -SR<sup>5</sup>, in which R<sup>5</sup> is hydrogen,  $C_{1-10}$ -alkyl,  $C_{1-10}$ -alkenyl  $C_{2-10}$ alkenyl, aryl or  $C_{3-8}$ -cycloalkyl,

[using] with a microorganisms of the genus Escherichia, or cell-free extracts derived therefrom, wherein said microorganisms express an enzyme which is capable of reducing a carbonyl function enantioselectively reduces the trifluoroacetoacetic acid derivatives of formula II leading to the production of 4,4,4-trifluoro-3(R)-hydroxybutyric acid derivatives of the formula:



## wherein R<sup>1</sup> is

- (a)  $-OR^2$ , in which  $R^2$  is hydrogen,  $C_{1-10}$ -alkyl,  $C_{2-10}$ -alkenyl,
- C<sub>3-8</sub>-cycloalkyl, aryl, alkoxyalkyl or alkoxyalkoxyalkyl,

  (b) -NR<sup>3</sup>R<sup>4</sup>, in which R<sup>3</sup> and R<sup>4</sup> are identical or different and represent
- hydrogen, C<sub>1-10</sub>-alkyl, C<sub>2-10</sub>-alkenyl, C<sub>3-8</sub>-cycloalkyl or aryl, or
- (c) -SR<sup>5</sup>, in which R<sup>5</sup> is hydrogen,  $C_{1-10}$ -alkyl,  $C_{2-10}$ -alkenyl, aryl or  $C_{3-8}$ -cycloalkyl; and
- (ii) isolating said the trifluoro-3(R) hydroxybutyric acid 4,4,4-trifluoro-3(R)-hydroxybutyric acid derivatives produced.

- 8. 9. (currently amended) The process according to Claim 8 wherein the microorganisms of the genus *Escherichia* are transformed with a gene encoding an enzyme which is capable of reducing reduces a carbonyl function.
- 10. (previously presented) The process according of Claim 9 wherein the microorganisms of the genus *Escherichia* are selected from the group consisting of *Escherichia* coli JM109, HB101 or and DH5.
- 11. (previously presented) The process according to Claim 9 or 10 wherein the microorganisms of the genus *Escherichia coli* are transformed with a gene encoding a glucose dehydrogenase
- 12. (previously presented) The process of Claim 11 wherein the microorganisms of the genus *Escherichia* are transformed with the plasmids pKAR and pKKGDH, as deposited under the deposition numbers DSM 11902 and DSM 12566, respectively.
- 13. (previously presented) The process of Claims 8, 9, 10 or 12 wherein said process is carried out a temperature of from 5 to 60°C.
- 14. (previously presented) The process of Claim 11 wherein said process is carried out a temperature of from 5 to 60°C.

## A33251-PCT-USA 071800.0135

**PATENT** 

- 15. (previously presented) The process according to one of Claims 8, 9, 10 or 12, wherein said process is carried out at a pH of from 5 to 10.
- 16. (previously presented) The process according to one of Claim 11 wherein said process is carried out at a pH of from 5 to 10.